# PUBLIC INFORMATION & COMMUNICATION SERVICES (PICS) NIH - TASK ORDER

RFTOP#224 TITLE: Usability & Accessibility Study of Women Physicians

Web site Design

## PART I – REQUEST FOR TASK ORDER (TO) PROPOSALS

A. Point of Contact Name: Wei Ma

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### **B. PROPOSED PERIOD OF PERFORMANCE:** 14 days from date of award.

**C. PRICING METHOD:** Firm Fixed Price - Firm should provide a single price. Please describe the methods to be employed and the estimated number of employee hours required. Firm rates for use of usability testing facilities and equipment. Describe the development of task scenarios and other factors of the testing process.

This project's testing scope should encompass testing of approximately 36 participants including at least 4-6 disabled individuals. If, in the opinion of your firm, this is not a sufficient number to conduct a thorough evaluation, please specify how to best accomplish a thorough and complete evaluation for accessibility and usability.

- **D. PROPOSAL INSTRUCTIONS:** Proposals should be submitted to me by e-mail at: <a href="maw@mail.nlm.nih.gov">maw@mail.nlm.nih.gov</a>. Please enter in the subject line the following text, "RFTOP# Proposal." A signed task order form will later be requested from the successful bidder.
- E. RESPONSE DUE DATE: Monday, September 13, 2004 at 4:00PM EDT.

#### F. TASK DESCRIPTION:

The Office of Computer and Communication Systems (OCCS) of the National Library of Medicine (NLM) desires to conduct a usability study & accessibility evaluation of a new resource called the Woman Physicians Web site. The study will be designed to answer the following key questions:

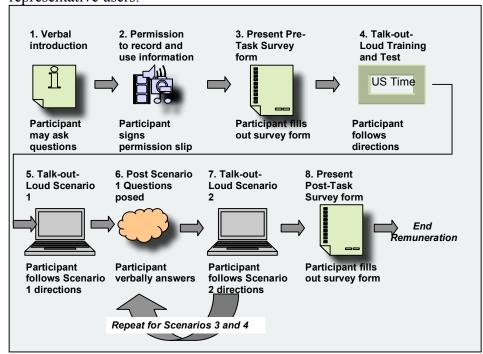
• Do proposed new features on the site meet or exceed Web accessibility standards such as Section 508? Is the site clear when viewed with Assistive Technology (AT) devices, and accessible to those with low vision? Is multimedia accessible to AT devices and low-vision users?

• Are proposed features of the site usable in the sense that all anticipated user groups can achieve their goals on the site? Navigation, site functionality, and content quality, and usability of design will be tested.

Testing will verify that users will be successful in using features to access relevant information. Results will be disseminated to OCCS and NLM, as well as other interested NIH institutes via the NLM Web site. Recommendations will be incorporated into the design of new features to ensure usability and accessibility.

## Study Design -

The Women Physicians web site will be tested through structured scenarios in a usability lab testing environment. The following depicted general testing protocol should be employed for a minimum of 4 typical website-use scenarios and 4 groups of 3 each representative users:



The site will be tested in two iterations, once during the early prototype design phase (current), and then during the modified design final development stage. The features to be tested are:

Usability goals for the site to be evaluated with usability testing are:

**Multi-Media accessibility and use.** The presented video/audio content together with related text transcripts should be evaluated to ensure that it is appropriately synchronized and presented according to user needs and preferences. Newly developed user controls for the media should be intuitive to use and should allow users to perform desired control functions.

**User satisfaction, information content, and functional scope**. Users should rate their interaction with the site favorably. Subjective usability should be evaluated with standardized Semantic Differential Rating Scales.

**Navigation and Finding Information.** Critical to the success of the site is whether public users (occasional and new-to-the-site visitors) are able to find and learn about critical nomination process information. Scenario testing protocols shall be used to evaluate user accomplishment of this task.

**Form Filling for Collaboration.** User entry for form filling must be successful. User goal achievement during text entry of nomination information and when sharing own stories will be observed and potential user difficulties with designed forms and other related issues will be evaluated.

**User Search, Information Index Terminology.** The effectiveness of user's interaction with a proposed biographic index search utility for pages of the site will also be explored. Cognitive judgments will be collected from users relating their understanding of labels, category headers, and action buttons. Using the "right" (e.g., unambiguous to the user) terminology will increase a user's likelihood of task completion and success with the bibliographic search utility and the site generally.

The contractor is expected to use a combination of some or all of the following methods: (1) Semi-structured stakeholder interviewing; (2) Heuristic inspection of prototype features; (3) Structured scenario walkthroughs with design prototypes; (4) Preand post-usability testing surveys; (5) Analysis of any existing statistical usage/tracking data for the parent Local Legends site; (6) Testing with assistive technology (AT) devices.

**Performance Measures to be used:** User objective performance data including task completion, page click events, page dwell times and media view durations shall be recorded and analyzed together with observational data and more subjective user opinions collected via surveys and standardized questions.

**Dissemination/Use of Results** – Clear and concise reports and recommendations from the user data, including prepared video highlight segments of illustrative testing situations shall be made to the application development team and interested stakeholders. The contractor will work closely with NLM/OCCS to determine testing strategies appropriate to each area of study, and will provide NLM/OCCS staff and designated stakeholders with opportunities to observe the testing sessions.

### **Clearances**

These studies will not require OMB clearance since no more than 6 users in each user group category will be tested.

### G. EVALUATION FACTORS

### 1. Corporate Experience:

The contractor shall have experience in the following:

- □ Recruiting and remunerating subjects from target populations
- □ Preparation of user profiles (personas) and usage scenarios;
- Conducting portable lab-based usability studies employing performance metrics tracking, annotation, and/or collection systems (using MORAE or similar software).
- Preparing highlight video-clips from recorded testing data.

- □ Preparing and following established and agreed upon usability testing protocols.
- Preparing and conducting paper prototype tests, if needed.
- Preparing screening instruments to identify suitable testing participants.
- □ Recording and analyzing response data
- □ Evaluating information-intensive sites with varied representatives of the public.
- □ Preparing clear and concise quick reports, final reports and presentations from the response data and delivering results in English.
- □ Making recommendations for modifications to web page layouts and navigation schemes and site language employing quick-turn-around methods.
- □ Accommodating local area (Bethesda, MD) observation access for NLM staff to observe some or all of the testing.

The contractor shall utilize their own pre-existing lists of potential study subjects for the purposes of recruitment, and be able to recruit subjects based on provided demographic criteria and provided lists from Medical Professional Associations.

The contractor shall be able to perform usability testing at their site which should be in reasonable proximity to Bethesda, MD, equipped with computers and usability lab equipment and related software and video capture. The contractor shall accommodate persons with disabilities either at their site, at the person's home or office, or a disability equipment vendor demonstration site. The contractor shall be familiar with hardware and software used by persons with disabilities. The contractor shall be familiar with evaluations of Section 508 compliance criteria of the Rehabilitation Act and its application to electronic media and web sites.

- 2. Evaluation Process: Any proposed evaluation procedures will be assessed by NLM/OCCS to determine the extent to which these procedures are likely to produce objective and meaningful feedback, the ability to provide quick turnaround results, provide local access to usability testing sessions and perform to match the OCCS development teams' schedule.
- 3. Price: While price will not be the most important evaluation factor, proposed prices will be considered in determining the firm that represents the best value to the government.

RFTOP#224 TITLE:  PART II - CONTRACTOR'S F	REPLY: CONTRACT #263-01-D-0_	TO #
NICS	<u> </u>	10 "
Contractor:		
Points of Contact:	T.	
Phone- Address:	Fax-	
Address:		
TOTAL ESTIMATED COST:	Pricing Metho	d
TOTAL ESTIMATED NUMBER	R OF HOURS:	
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FOR THE CONTRACTOR:		
Signatu	ure Dat	te
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THIS FIRM SUBMITTED THE PRICE/COST IS REASONABLE Billing Reference # Appropriations Data:	JBMITTED PROPOSALS HAVE DETE BEST OVERALL PROPOSAL AND THE E.  OCUMENT IF AN ROC WILL NOT BE	ΗE
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APPROVED:		
FAX #	Signature - Contracting Officer	Date
	XCEED THE ESTIMATED LABOR HO MOUNT WITHOUT THE WRITTEN AI R & PICS COORDINATOR	
APPROVED:		
Signature -Larry Manning, NIH-	PICS Coordinator Date	